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			EXAMINER PHAN, TAM T	
			ART UNIT 2144	PAPER NUMBER

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/690,010

Applicant(s)

YAMANAKA ET AL.

Examiner

Tam (Jenny) Phan

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06/07/2004 and 09/22/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

### **DETAILED ACTION**

1. In response to Applicant Initiated Interview on September 22, 2004, Examiner has prepared a supplemental action in addition to the Office Action dated 08/26/2004 for clarification purposes and for addressing issues that were presented during the interview.
2. Claims 1-18 are presented for examination.

#### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
4. The effective filing date for the subject matter defined in the pending claims in this application is 01/31/2000.

#### ***Response to Arguments***

5. Claims 1-5, 8, 9-13, and 16-18 are rejected under 35 U.S.C. 103(a) rejection as being unpatentable over Touma et al. (U.S. Patent Number 6,288,809), hereinafter referred to as "the '809 patent", in view of Matsunaga et al. (U.S. Patent Number 6,434,164), hereinafter referred to as "the '164 patent".
6. In response to applicants' argument "The '164 patent fails to disclose that a downward bandwidth management means is arranged in an optical line terminator for controlling downloading of data," and "the '164 patent fails to disclose that bandwidth is reserved for the downloading of digital content from a retailer to an optical network unit of a consumer," it is submitted that the '164 patent disclosed a bandwidth management means and bandwidth reservation for both downward and upward transmission as should be evidenced by the following explanation. According to applicants' specification, downward bandwidth managing means

Art Unit: 2144

controls the transmission of the digital content of a downward signal (page 7 lines 13-18, page 24 lines 19-29) and upward bandwidth managing means control the information of an upward signal transmitted in the upstream direction. Thus, bandwidth managing means controls the transmission of information in a downward and upward direction.

7. Refer to the '164 patent specifically Figures 2 and 11. In Figure 2, upstream signal (10a) is received at the reservation resource means (10f) and is forwarded to the resource control means (10m). In the same Figure 2, the downward signal (310) is received at the resource reservation and is forwarded to the bandwidth allocation means (311, 312) either bypassing or not by passing the reservation information delay means (101). The downward signal (306, 301) is then transmitted to the downstream receiving means (10b). Since the resource control means controls transmission of digital data in bidirectional direction, it is submitted that the '164 patent disclosed bandwidth managing means controls the transmission of information both in downstream and upstream. Refer to column 10 of the "164 patent for a technical descriptions of the discussed features. Observing Figure 11, one of ordinary skills in the art would appreciate that the reservation bandwidth control means (12m) controls transmission of digital signal in both the downstream and upstream direction as shown by the bidirectional flows of direction 309 vs. direction 319 and direction 323 vs. direction 324.

8. In response to applicants' argument "The '164 patent fails to disclose that a downward bandwidth management means is arranged in an optical line terminator for controlling downloading of data," it is submitted that optical line terminator as described by the applicants' specification is arranged in an office of a network operator, for terminating a main subscriber line formed of an optical fiber (Applicant specification page 4 lines 2-5). The '164 patent

Art Unit: 2144

disclosed a downward bandwidth management means arranged in a center station, arranged in an office of a network operator, for terminating a main subscriber line formed of an optical fiber and for controlling the transmission or downloading of the digital content data. Thus it is apparent that the '164 patent disclosed the above argued limitation.

9. In addition, as disclosed by applicant prior art (specification page 1-5 and Figure 18), a Passive Optical Network (PON) comprising components such as optical network units, optical line terminator, star coupler, subscriber lines, etc. was well known at the time of the invention. The PON described in applicants' invention is the same as that of the convention PON plus some additional features (Refer to Figure 3 and Figure 18 for comparison). The conventional PON according to industry standard consists of an optical line terminator located at the central office and a set of associated optical network terminals located at the customer's premise. The '164 patent disclosed a bandwidth management means arranged in a center station for terminating a main subscriber line formed of an optical fiber and for controlling the transmission of the digital content data. It would have been obvious for one of ordinary skill in the art to recognize that the Central Office and the Center Station is one of the same. Thus it is apparent that the '164 patent disclosed the argued limitation above.

10. In view of applicants' argument presented during an interview conducted on 09/22/2004 that the '164 patent disclosed a resource reservation server locates in the of the center station [optical line terminator] and thus failed to disclose a resource reservation server locates outside of the optical line terminator, it is submitted that re-arrangement of parts is not distinctly patentable. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) (Claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch

Art Unit: 2144

were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device.); In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). However, "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

11. As the rejection reads, Examiner asserts that the combination of these teachings render the claimed invention obvious.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-5, 8, 9-13, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Touma et al. (U.S. Patent Number 6,288,809), hereinafter referred to as Touma, in view of Matsunaga et al. (U.S. Patent Number 6,434,164), hereinafter referred to as Touma.

14. Regarding claim 1, Touma disclosed a digital content downloading system using a network in which digital content possessed by a digital content retailer is downloaded to one of a plurality of consumers through a network, comprising:

a plurality of subscriber lines each formed of an optical fiber and arranged between the consumers and the network, the network being managed by a network operator (Abstract, Figures 13 and 16, column 1 lines 19-30, column 4 lines 60-67);

an optical line terminator [optical service unit], arranged on one side of the network, for terminating a subscriber line on the network side (Figures 1, 5, 13, and 16, column 5 lines 1-19, lines 51-64);

an optical network unit [ONU], arranged on a side of each consumer, for terminating a subscriber line on the consumer side (Figures 1, 5, 13 and 16, column 5 line 65-column 6 line 8); and

a star coupler configured to connect the subscriber lines terminated by the optical network units to the subscriber line terminated by the optical line terminator (Figures 1, 5, 13 and 16, column 1 lines 23-30).

15. Touma taught the invention substantially as claimed. However, Touma did not expressly teach a resource reservation server configured to reserve a particular bandwidth for the digital content in the subscriber lines in response to a request by a particular consumer; and downward bandwidth managing means for controlling downloading of the digital content from the digital content retailer to the optical network unit of the particular consumer so that the digital content is transmitted through the subscriber lines and the star coupler at the particular bandwidth reserved by the resource reservation server.

16. Touma suggested exploration of art and/or provided a reason to modify the digital content downloading system with the bandwidth reservation and management features (column 9 lines 49-54, column 10 lines 61-67).

17. In an analogous art, Matsunaga disclosed digital content downloading system such as passive optical star network comprising:

a resource reservation server [reservation bandwidth quantity control means] for reserving a particular bandwidth for the digital content in the subscriber lines in response to a request by a particular consumer (Figure 2 signs 10f and 10j, Figure 13 sign 80, column 2 lines 47-57);

and downward bandwidth managing means, arranged in the optical line terminator [center station], for controlling the downloading of the digital content from the digital content retailer to the optical network unit of the particular consumer to transmit the digital content through the subscriber lines and the star coupler at the particular bandwidth reserved by the resource reservation server (Figure 2 signs 10f, 310, 312, 10i, 306, and 10k, column 10 lines 26-50).

18. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Touma with the teaching of Matsunaga to include the bandwidth reservation feature in order to guarantee quality of service in the downstream and upstream channel (Figure 1, column 1 lines 52-57) since services such as audio and video transmission must be guaranteed (column 1 lines 52-57).

19. Regarding claim 2, Matsunaga disclosed a digital content downloading system using a network, wherein the particular bandwidth for the digital content reserved in response to the request by the particular consumer by the resource reservation server is guaranteed in a shared bandwidth of the subscriber lines (Figure 3 sign 410, Figure 13, column 1 lines 52-57).

20. Regarding claim 3, Touma and Matsunaga combined disclosed a digital content downloading system using a network, wherein the particular bandwidth for the digital content reserved by the resource reservation server in response to the request by the particular consumer is guaranteed in a first signal having a wavelength differing from that of a second signal corresponding to a shared bandwidth of the subscriber lines (Touma, column 6 lines 28-44, column 5 lines 51-64, column 6 lines 1-8; Matsunaga, column 8 lines 18-32 ).

21. Regarding claim 4, Touma disclosed a digital content downloading system using a network wherein the optical network unit arranged on the side of the particular consumer comprises: an optical wavelength demultiplexing unit configured to demultiplex a multiplexed



Art Unit: 2144

optical signal of a first wavelength transmitting through the subscriber line (Abstract, Figure 1 signs 2, 3, 24, 25, column 2 lines 33-46); a first optical receiving unit configured to receive a plurality of optical signals of the first wavelength demultiplexed by the optical wavelength demultiplexing unit and to convert the optical signals into a plurality of digital signals (Figure 1 signs 4-5, 22-23, column 5 lines 12-19); a passive optical network processing unit configured to extract data of the digital content from the digital signals obtained by the first optical receiving unit (Figure 1, column 5 lines 51-64); a plurality of interfaces, connected to a plurality of terminals in one-to-one correspondence, configured to respectively transmit data matching the corresponding terminal to the corresponding terminal (Figures 1 and 8, column 5 lines 28-44); and a destination judging and header processing unit configured to judge the destination of the data of the digital content extracted by the passive optical network processing unit to determine a particular terminal to which the data of the digital content is downloaded, to perform header processing for the data of the digital content to identify the content retailer, and to transmit the data of the digital content to the particular terminal through one interface corresponding to the particular terminal (Abstract, Figures 4A-4B, 8, 10, column 10 lines 30-49).

22. Regarding claim 5, Touma disclosed a digital content downloading system using a network wherein the optical network unit arranged on the side of the particular consumer comprises an optical wavelength demultiplexing unit for configure to demultiplex a first multiplexed optical signal of a first wavelength transmitting through the subscriber line to a plurality of first optical signals of the first wavelength and to demultiplex a second multiplexed optical signal of a second wavelength transmitting through the subscriber line to a plurality of second optical signals of the second wavelength, the second multiplexed optical signal including

Art Unit: 2144

data of the digital content of which the particular bandwidth is reserved by the resource reservation server (Abstract, Figures 1, column 5 lines 1-27, lines 51-64, column 10 lines 30-45); a first optical receiving unit configure to receive the first optical signals of the first wavelength from the optical wavelength demultiplexing unit and to convert the first optical signals into a plurality of first digital signals (Figure 1 signs 4-5, 22-23, column 5 lines 12-19); a second optical receiving unit configure to receive the second optical signals of the second wavelength from the optical wavelength demultiplexing unit and to convert the second optical signals into a plurality of second digital signals (column 5 lines 28-44); a passive optical network processing unit configure to extract the data of the digital content from the second digital signals obtained by the second optical receiving unit (Figure 1, column 5 lines 51-64); a plurality of interfaces, connected to a plurality of terminals in one-to-one correspondence, configure to respectively transmit data matching the corresponding terminal to the corresponding terminal (Figures 1 and 8, column 5 lines 28-44); and a destination judging and header processing unit for judging the destination of the data of the digital content extracted by the passive optical network processing unit to determine a particular terminal to which the data of the digital content is downloaded, to perform a header processing for the data of the digital content to identify the content retailer, and to transmit the data of the digital content to the particular terminal through one interface corresponding to the particular terminal (Abstract, Figures 4A-4B, 8, 10, column 10 lines 30-49).

23. Regarding claim 8, Matsunaga disclosed a digital content downloading system using a network, wherein the digital content is a music file, a video file, or a game software title (column 1 lines 14-24, lines 52-57).

Art Unit: 2144

24. Regarding claims 9-13 and 16, the limitations of these claims are similar to the system of claims 1-5 and 8, and thus these claims are rejected using the same rationale.

25. Regarding claim 17, Matsunaga disclosed a digital downloading system wherein the resource reservation server is arranged in the network center station [optical line terminator] and separate from the optical networking units (Figure 2, Figure 13). It would have been obvious to re-arrange the server to locate separate from the center station since network device can locate anywhere as long they serve their purpose as specified by the required system.

26. Regarding claim 18, Matsunaga disclosed a digital downloading system wherein the resource reservation server is configured to reserve the particular bandwidth so that the particular bandwidth is reserved from a particular start time to a particular end time (column 3 lines 28-51, column 5 lines 59-67).

27. Since all the limitations of the claimed invention were disclosed by the combination of Touma and Matsunaga, claims 1-5, 8, 9-13, and 16-18 are rejected.

28. Claims 6-7 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Touma et al. (U.S. Patent Number 6,288,809), hereinafter referred to as Touma, in view of Matsunaga et al. (U.S. Patent Number 6,434,164), hereinafter referred to as Touma, and further in view of Sawyer (U.S. Patent Number 5,828,737).

29. Regarding claim 6, Touma disclosed a digital content downloading system using a network in which digital content possessed by a digital content retailer is downloaded to one of a plurality of consumers through a network, comprising: a plurality of subscriber lines each formed of an optical fiber and arranged between the consumers and the network, the network being

Art Unit: 2144

managed by a network operator (Abstract, Figures 13 and 16, column 1 lines 19-30, column 4 lines 60-67); an optical line terminator [optical service unit], arranged on one side of the network, for terminating a subscriber line on the network side (Figures 1, 5, 13, and 16, column 5 lines 1-19, lines 51-64); an optical network unit [ONU], arranged on a side of each consumer, for terminating a subscriber line on the consumer side (Figures 1, 5, 13 and 16, column 5 line 65-column 6 line 8); a star coupler configured to connect the subscriber lines terminated by the optical network units to the subscriber line terminated by the optical line terminator (Figures 1, 5, 13 and 16, column 1 lines 23-30). Matsunaga disclosed a digital content downloading system such as passive optical star network comprising a resource reservation server [reservation bandwidth quantity control means] for reserving a particular bandwidth for the digital content in the subscriber lines in response to a request by a particular consumer (Figure 2 signs 10f and 10j, Figure 13 sign 80, column 2 lines 47-57); and downward bandwidth managing means, arranged in the optical line terminator [center station], for controlling the downloading of the digital content from the digital content retailer to the optical network unit of the particular consumer to transmit the digital content through the subscriber lines and the star coupler at the particular bandwidth reserved by the resource reservation server (Figure 2 signs 10f, 310, 312, 10i, 306, and 10k, column 10 lines 26-50).

30. The combination of Touma and Matsunaga taught the invention substantially as claimed. However, Touma and Matsunaga did not teach a digital content downloading system using a network, wherein the content retailer charges the particular consumer for the downloading of the digital content according to the particular bandwidth reserved by the resource reservation server, a time period used for the downloading or a time zone used for the downloading.

Art Unit: 2144

31. Matsunaga suggested exploration of art and/or provided a reason to modify the digital content downloading using network with the bandwidth-billing feature for subscriber services (Title, column 1 lines 52-56).

32. Sawyer disclosed a digital content downloading system using a network, wherein the content retailer is configured to charge the particular consumer for the downloading of the digital content according to the particular bandwidth reserved by the resource reservation server, a time period used for the downloading or a time zone used for the downloading (Title, Abstract, Figures 1 and 3B, column 1 lines 2 lines 1-5, 7-18, column 4 lines 6-32, column 5 lines 29-54).

33. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the combined system of Touma and Matsunaga with the teaching of Sawyer to include the bandwidth billing feature in order to accurately charge the subscriber (Sawyer, column 1 lines 54-67) since charging users for access to and the use of the communication system is an important concern for the service providers (Sawyer, column 4 lines 6-13).

34. Regarding claim 7, Sawyer disclosed a digital content downloading system using a network, wherein information of charges corresponding to a bandwidth used for the downloading of data including the digital content, a time period used for the downloading of data including the digital content, or a time zone used for the downloading of data including the digital content is transmitted from the network operator to the consumers (Title, Abstract, Figures 1 and 3B, column 1 lines 2 lines 1-5, 7-18, column 4 lines 6-32, column 5 lines 29-54, column).

35. Regarding claims 14-15, the limitations of these claims correspond directly to the system of claims 6-7, and thus these claims are rejected using the same rationale.

Art Unit: 2144

36. Since all the limitations of the claimed invention were disclosed by the combination of Touma and Matsunaga, claims 6-7 and 14-15 are rejected.

37. Claims 1-3, 6-8, 9-11, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (EP 869634), hereinafter referred to as Wright, in view of Caterisano (WO 9818235).

38. Regarding claim 1, Wright disclosed a digital content downloading system using a network in which digital content possessed by a digital content retailer is downloaded to one of a plurality of consumers through a network, comprising:

a plurality of subscriber lines each formed of an optical fiber and arranged between the consumers and the network, the network being managed by a network operator (Figures 1-2, Figure 6 sign 26, Figure 16 sign 261)

an optical line terminator [OLT], arranged on one side of the network, for terminating a subscriber line on the network side (Figure 1 sign 2) ;

an optical network unit, arranged on a side of each consumer, for terminating a subscriber line on the consumer side (Figures 1 signs 4<sub>1</sub> – 4<sub>4</sub>);

a star coupler configured to connect the subscriber lines terminated by the optical network units to the subscriber line terminated by the optical line terminator (Figure 2 sign 10).

39. Wright taught the invention substantially as claimed. However, Wright did not expressly teach a resource reservation server configured to reserve a particular bandwidth for the digital content in the subscriber lines in response to a request by a particular consumer; and downward bandwidth managing means for controlling downloading of the digital content from the digital content retailer to the optical network unit of the particular consumer so that the digital content is

Art Unit: 2144

transmitted through the subscriber lines and the star coupler at the particular bandwidth reserved by the resource reservation server.

40. Wright suggested exploration of art and/or provided a reason to modify the digital content downloading system with the bandwidth reservation and management features (Figure 8, Figure 16 sign 261).

41. In an analogous art, Caterisano disclosed digital content downloading system such as passive optical star network comprising:

a resource reservation server for reserving a particular bandwidth for the digital content in the subscriber lines in response to a request by a particular consumer (Abstract, Figures 8, page 43 lines 22-27, page 44 lines 3-17);

and bandwidth managing means for controlling the downloading of the digital content from the digital content retailer to the optical network unit of the particular consumer to transmit the digital content through the subscriber lines and the star coupler at the particular bandwidth reserved by the resource reservation server (Abstract, Figures 3-5, page 3 lines 3-14, page 43 lines 22-27, page 44 lines 3-17, page 45 lines 3-12).

42. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Wright with the teaching of Caterisano to include the bandwidth reservation feature in order to guarantee quality of service in downloading digital content (Caterisano, page 2 lines 3-14, page 4 lines 12-26) since users of digital data such as voice, audio, and video transmission required high and guarantee bandwidth (Caterisano, page 3 lines 3-14).

43. Regarding claim 2, Caterisano disclosed a digital content downloading system using a network, wherein the particular bandwidth for the digital content reserved in response to the request by the particular consumer by the resource reservation server is guaranteed in a shared bandwidth of the subscriber lines (page 3 lines 3-9, page 4 lines 12-26, page 44 lines 3-16).

Art Unit: 2144

44. Regarding claim 3, Wright disclosed a digital content downloading system using a network, wherein the particular bandwidth for the digital content reserved by the resource reservation server in response to the request by the particular consumer is guaranteed in a first signal having a wavelength differing from that of a second signal corresponding to a shared bandwidth of the subscriber lines (Abstract, Figures 1-2, 6, page 5 lines 5-10, lines 48-54 page 6 lines 7-12).

45. Regarding claim 6, Caterisano disclosed a digital content downloading system using a network, wherein the content retailer is configured to charge the particular consumer for the downloading of the digital content according to the particular bandwidth reserved by the resource reservation server, a time period used for the downloading or a time zone used for the downloading (page 3 lines 3-9, page 4 lines 12-26, page 44 lines 3-16, page 45 lines 3-9).

46. Regarding claim 7, Caterisano disclosed a digital content downloading system using a network, wherein information of charges corresponding to a bandwidth used for the downloading of data including the digital content, a time period used for the downloading of data including the digital content, or a time zone used for the downloading of data including the digital content is transmitted from the network operator to the consumers (page 3 lines 3-9, page 4 lines 12-26, page 44 lines 3-16, page 45 lines 3-9).

47. Regarding claim 8, Caterisano disclosed a digital content downloading system using a network, wherein the digital content is a music file, a video file, or a game software title (page 3 lines 3-9).

48. Regarding claims 9-11 and 14-16, the limitations of these claims are similar to the system of claims 1-3 and 6-8, and thus these claims are rejected using the same rationale.



Art Unit: 2144

49. Regarding claim 17, Wright and Caterisano combined disclose a digital downloading system wherein the resource reservation server is arranged in the network separate from the optical line terminator and the optical networking units (Wright, Abstract, page 2 lines 3-18, page 4 lines 1-6; Caterisano, Figures 3, page 37 lines 12-27).

50. Regarding claim 18, Caterisano disclosed a digital downloading system wherein the resource reservation server is configured to reserve the particular bandwidth so that the particular bandwidth is reserved from a particular start time to a particular end time (page 4 lines 12-26).

51. Since all the limitations of the claimed invention were disclosed by the combination of Wright and Caterisano, claims 1-3, 6-8, 9-11, and 14-18 are rejected.

#### ***Conclusion***

52. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (703) 305-4665 or (571) 272-3930 (new telephone number after October 2004). The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Art Unit: 2144

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William Cuchlinski

SPE

Art Unit 2144

703-308-3873

571-272-3925

tp  
October 27, 2004